

What is claimed is:

1. A method for providing a disk drive having a user selectable maximum current draw, comprising:
receiving a maximum current draw selection; and
limiting an actual current draw of said disk drive to said selected maximum.
2. The method of Claim 1, wherein said selected maximum current draw is about equal to an amount of current drawn by said disk drive during seek operations.
3. The method of Claim 2, wherein said current drawn during seek operations is about equal to a steady-state spin current of a spindle motor of said disk drive plus a current drawn by an actuator of said disk drive when said actuator is in operation.
4. The method of Claim 2, wherein said current drawn during seek operations is about equal to a steady-state spin current of a spindle motor of said disk drive, plus a current drawn by an actuator wherein said actuator is in operation, plus an amount of current drawn by control electronics associated with said disk drive.
5. The method of Claim 1, wherein said selected maximum current draw is about equal to four times an amount of current drawn by said disk drive during seek operations.

6. The method of Claim 1, wherein said selected maximum current draw is selected from a plurality of current amounts.

7. The method of Claim 6, wherein said plurality of current amounts comprise a first amount about equal to a steady state spin current of said disk drive plus an amount of current drawn by an actuator of said disk drive during seek operations, and wherein a selection of said first amount results in a disk drive start-up time that is greater than a disk drive start-up time resulting from a selection of a second amount that is greater than said first amount.

8. The method of Claim 7, wherein a selection of said first amount allows a power supply having a first capacity, and wherein a selection of said second amount requires a power supply having a second capacity, wherein said second capacity is greater than said first.

9. The method of Claim 1, wherein said step of receiving a maximum current draw selection comprises setting a hardware switch.

10. The method of Claim 9, wherein said hardware switch comprises at least one of a jumper and a mechanical switch.

11. The method of Claim 1, wherein said step of receiving a maximum current draw selection comprises specifying a maximum current draw selection through at least one of a software command, a firmware command, and a microcode command.

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12. A method for reducing start-up current in a disk drive, comprising:
determining a maximum normal operating current for said disk drive; and
setting a maximum start-up current to an amount about equal to said maximum
normal operating current, wherein a power supply for said disk drive is designed to
5 supply said maximum normal operating current.

13. The method of Claim 12, wherein said maximum normal operating current
comprises spindle motor current during steady-state operation of said spindle motor and
an actuator current when an actuator assembly is moved from a first position to a second
position.

14. The method of Claim 12, further comprising loading a transducer head of
said disk drive into position over a storage disk of said disk drive after said storage disk
has attained a predetermined rotational velocity.

15. The method of Claim 12, further comprising supplying an electrical
current to said disk drive from a power supply, wherein said power supply is incapable of
supplying said disk drive with more than said maximum normal operating current.

16. The method of Claim 12, wherein said normal operating current for said
disk drive does not comprise an unregulated current draw of said disk drive during disk
spin-up.

17. The method of Claim 12, wherein said maximum normal operating current of said disk drive is less than about 0.5 Amp.

18. A disk drive apparatus, comprising:

a base;

a spindle motor;

at least a first storage disk having a plurality of data tracks interconnected to said

5 base by said spindle motor;

at least a first transducer head interconnected to said base for reading and writing
information to said plurality of data tracks of said at least a first storage disk;

an actuator interconnected to said transducer head for moving said transducer
head with respect to said storage disk to address a selected one of said data tracks; and

10 a maximum current draw selector, wherein a maximum current drawn by said disk
drive does not exceed a selected maximum current.

19. The disk drive apparatus of Claim 18, wherein an amount of current drawn
by said spindle motor during steady-state operation plus an amount of current drawn by
said actuator during a seek operation is about equal to a minimum selectable maximum
current.

20. The disk drive apparatus of Claim 18, wherein said maximum current
draw selector comprises a selector switch.

21. The disk drive apparatus of Claim 18, wherein said maximum current
draw selector comprises at least one of software, firmware, or microcode.

26. The method of Claim 25, wherein said selected maximum disk drive supply current is about equal to said maximum normal operating current.

27. The method of Claim 25, wherein said maximum normal operating current draw of said disk drive comprises current provided to said spindle motor and current provided to said actuator.

28. The method of Claim 25, wherein said selected maximum disk drive supply current is about equal to four times said maximum normal operating current draw of said disk drive.

29. The method of Claim 25, wherein maximum disk drive supply current is about equal to five times said maximum normal operating current draw of said disk drive.

30. The method of Claim 25, wherein said power supply is sized to provide said maximum normal operating current draw of said disk drive, plus an amount of current required by at least a first power consumer in addition to said disk drive, and wherein said power supply is not sized to provide an amount of current equal to said maximum current draw of said disk drive multiplied by a value equal to or greater than two.

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31. The method of Claim 23, wherein said step of loading said transducer head onto said storage disk is performed after said at least a first storage disk has achieved a predetermined rotational velocity.

32. The method of Claim 23, further comprising providing a first amount of current during start-up that is greater than a maximum normal operating current of said disk drive in response to a user selection, wherein said maximum disk drive supply current is equal to said first amount, and wherein a start-up time of said disk drive is reduced as compared to a start-up time of said disk drive when said current is limited to said maximum normal operating current of said disk drive.

33. The method of Claim 23, wherein said step of selecting a maximum supply current comprises setting a switch.

34. The method of Claim 33, wherein said switch is at least one of a jumper and a mechanical switch.

35. The method of Claim 33, wherein said disk drive further comprises a controller, and wherein said switch comprises a software switch provided by at least one of software, firmware, or microcode running on said controller.